

Serial No. 10/717,668  
Amdt. dated March 27, 2006  
Reply to Office Action of October 26, 2005

Docket No. K-0558

**Amendments to the Claims:**

This listing of claims will replace all prior versions, and listings, of claims in the application:

**Listing of Claims:**

1. (Currently Amended) A filter assembly ~~of~~ for a washing machine, comprising:  
a filter case, comprising:  
a body with an interior space formed therein;  
an inlet and an outlet each positioned on a circumference on an outer peripheral  
portion of the body; and  
an opening inside to make a passage provided within the interior space of the  
body and configured to provide for communication between the inlet and outlet communicate  
with each other; and  
a filter provided in the filter case, the filter ~~having~~ comprising a shaft with a plate  
disposed at one end thereof and in front of the opening opposition to the passage so as to  
prevent a heavy particle from passing through the opening passage, wherein the heavy particle is  
gathered filter is configured to gather particles in a central area by portion thereof in response to  
a centrifugal force generated when water flowing in fluid flows into the filter case via through  
the inlet and generates a circular flow within the body as it whirls to pass through the  
opening towards the passage.

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2. (Currently Amended) The filter assembly of claim 1, wherein the filter case is substantially cylindrical.

3. (Currently Amended) The filter assembly of claim 2, wherein the inlet is provided on an outer surface of the filter case ~~along a tangent~~ and is oriented in a tangential direction with respect to the filter case.

4. (Currently Amended) The filter assembly of claim 1, wherein the plate and the ~~opening passage~~ are substantially circular.

5. (Currently Amended) The filter assembly of claim 1, wherein the filter case ~~comprising: a tube having the inlet and outlet on a circumference; further comprises~~ a partition wall provided in the ~~tube~~ body and configured to partition an internal ~~the interior~~ space of the ~~tube formed within the body into a first and second chambers communicating chamber in communication with the inlet and a second chamber in communication with the outlet, respectively; and the opening perforating wherein the passage extends through~~ the partition wall.

6. (Currently Amended) The filter assembly of claim 5, wherein the body is substantially tubular, and wherein the inlet is provided on an outer surface of the tube along a tangent body and is oriented in a tangential direction with respect to the body.

7. (Currently Amended) The filter assembly of claim 5, ~~wherein further comprising~~ an impeller ~~is provided in the second chamber~~ and a motor configured to rotate the impeller, ~~wherein the impeller is configured to forcibly circulate the water by being rotated by a motor~~ fluid within the filter assembly.

8. (Original) The filter assembly of claim 5, wherein the filter is provided in the first chamber.

9. (Currently Amended) The filter assembly of claim 1, wherein the filter comprising further comprises a cap configured to be fitted to the filter case to be fixed thereto; a ~~, wherein the shaft extending extends from the cap toward the opening; and~~ passage, and wherein the plate is provided at an end of the shaft to be disposed in front of the opening opposite the cap so as to face the passage, with a predetermined gap formed between the plate and the passage.

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10. (Original) The filter assembly of claim 9, wherein the shaft is disposed along a central axis of the filter case.

11. (Currently Amended) The filter assembly of claim 9, wherein the filter ~~is built in one~~ comprises a single body.

12. (Currently Amended) The filter assembly of claim 9, wherein a size of the plate is greater than ~~that of the opening~~ a corresponding size of the passage.

13. (Currently Amended) The filter assembly of claim 9, wherein an edge of the plate ~~is overlapped with~~ overlaps a corresponding rim of the opening ~~passage~~.

14. (Currently Amended) The filter assembly of claim 9, wherein the filter further comprises a handle extending from the cap ~~to facilitate to be grabbed~~.

15. (Currently Amended) A filter assembly ~~of for~~ for a washing machine, comprising:  
a filter case, comprising:  
a tube having an inlet and an outlet provided on a circumference ~~circumferential~~  
portion of the tube;

a partition wall provided in the tube and configured to partition an internal space of the tube into a first chamber in communication with the inlet, and a second chambers communicating chamber in communication with the ~~inlet and outlet, respectively;~~ and

~~the an opening perforating extending through~~ the partition wall; and

a filter, comprising:

a cap fitted to the filter case ~~to be fixed thereto;~~

a shaft extending from the cap toward the opening; and

a plate provided at an end of the shaft ~~to be disposed in front of~~ and positioned facing the opening in the partition wall with a predetermined gap formed between the plate and the partition wall, wherein the plate is configured to prevent ~~a heavy particle-particles~~ from passing through the opening, and wherein the heavy particle is gathered filter is configured to gather particles in a central area by thereof in response to a centrifugal force generated when water flowing in the first chamber via the inlet fluid whirls to pass through the first chamber towards the opening.

16. (Currently Amended) The filter assembly of claim 15, wherein the tube is substantially cylindrical and the inlet is provided on an outer surface of the tube ~~along a tangent~~ and is oriented in a tangential direction with respect to the tube.

17. (Currently Amended) The filter assembly of claim 15, wherein the plate and the opening are substantially circular.

18. (Currently Amended) The filter assembly of claim 15, ~~wherein further comprising~~  
an impeller ~~is provided in the second chamber~~ and a motor configured to drive the impeller,  
~~wherein the impeller is configured to forcibly circulate the water by being rotated by a~~  
~~motor~~ fluid within the filter assembly.

19. The filter assembly of claim 15, wherein the shaft is disposed along a central axis of the tube.

20. (Currently Amended) The filter assembly of claim 15, wherein the filter is ~~built in~~  
~~one~~ comprises a single body.

21. (Currently Amended) The filter assembly of claim 15, wherein a size of the plate is greater than ~~that~~ a corresponding size of the opening.

22. (Currently Amended) The filter assembly of claim 15, wherein an edge of the plate ~~is overlapped with~~ overlaps a corresponding rim of the opening.

23. (Currently Amended) The filter assembly of claim 15, wherein the filter further comprises a handle extending from the cap ~~to facilitate to be grabbed~~.

24. (New) The filter assembly of claim 1, wherein the shaft extends continuously in a longitudinal direction of the filter case.

25. (New) The filter assembly of claim 5, wherein the tangential orientation of the inlet causes fluid introduced into the first chamber to flow along an inner circumference of the first chamber so as to generate a circular flow within the first chamber and draw particles in the fluid towards the central portion of the filter.

26. (New) The filter assembly of claim 7, wherein the impeller is configured to draw water in the first chamber through the passage into the second chamber and out through the outlet.

27. (New) The filter assembly of claim 9, wherein the predetermined gap is sized such that it allows wash water to pass therethrough and into the second chamber via the passage, while retaining particles greater than a predetermined size within the first chamber.

28. (New) The filter assembly of claim 27, wherein the particles greater than a predetermined size are retained by at least one of the shaft and the plate as the fluid whirls toward the passage.

29. (New) The filter assembly of claim 14, wherein, when the filter assembly is installed in a washing machine, the handle is accessible from an exterior of the washing machine.

30. (New) A washing machine comprising the filter assembly of claim 1.

31. (New) A filter assembly of claim 15, wherein the shaft extends continuously in a longitudinal direction of the tube.

32. (New) A washing machine comprising the filter assembly of claim 15.

33. (New) A filter assembly for a washing machine, comprising:

a filter case, comprising:

a body with an interior space formed therein;

an inlet and an outlet each positioned on a on an outer peripheral portion of the

body; and



a passage provided within the interior space of the body and configured to provide for communication between the inlet and outlet; and

a filter provided in the filter case, the filter comprising a plate disposed in opposition to the passage so as to prevent a particle from passing through the passage, wherein the filter is configured to gather particles in a central portion thereof in response to a centrifugal force generated when fluid flows into the filter case through the inlet and generates a circular flow within the body as it whirls towards the passage.

34. (New) The filter of claim 33, wherein the filter case further comprises a partition wall provided in the body and configured to partition the interior space formed within the body into a first chamber in communication with the inlet and a second chamber in communication with the outlet, wherein the passage extends through the partition wall.

35. (New) The filter of claim 34, wherein the filter further comprises a cap configured to be fitted to the filter case, and a shaft which extends from the cap toward the passage, and wherein the plate is provided at an end of the shaft opposite the cap so as to face the passage, with a predetermined gap formed between the plate and the passage.

36. (New) The filter of claim 35, wherein the filter case is substantially cylindrical and the plate and the passage are substantially circular, and wherein the inlet is provided on an outer surface of the filter case and is oriented in a tangential direction with respect to the filter case.

37. (New) The filter of claim 36, wherein the tangential orientation of the inlet causes fluid introduced into the first chamber to flow along an inner circumference of the first chamber so as to generate a circular flow within the first chamber and draw particles in the fluid towards the central portion of the filter.

38. (New) The filter of claim 35, wherein a size of the plate is greater than a corresponding size of the passage such that an edge of the plate overlaps a corresponding rim of the passage, and wherein the predetermined gap is sized such that it allows wash water to pass therethrough and into the second chamber via the passage while retaining particles greater than a predetermined size within the first chamber.